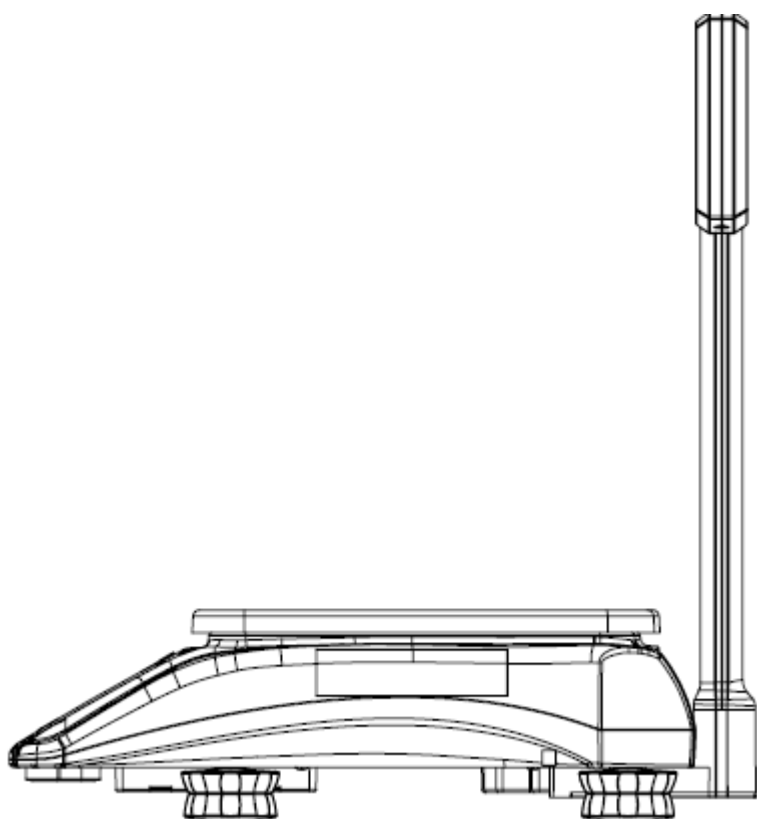


# bRite

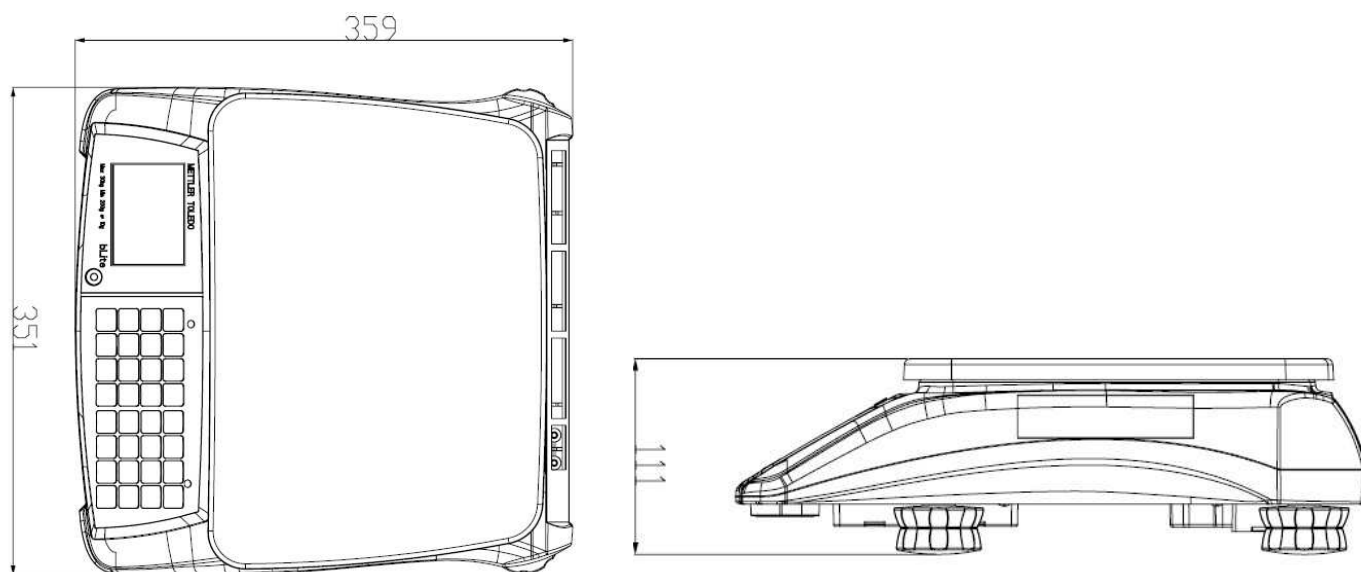
Service Manual

GB

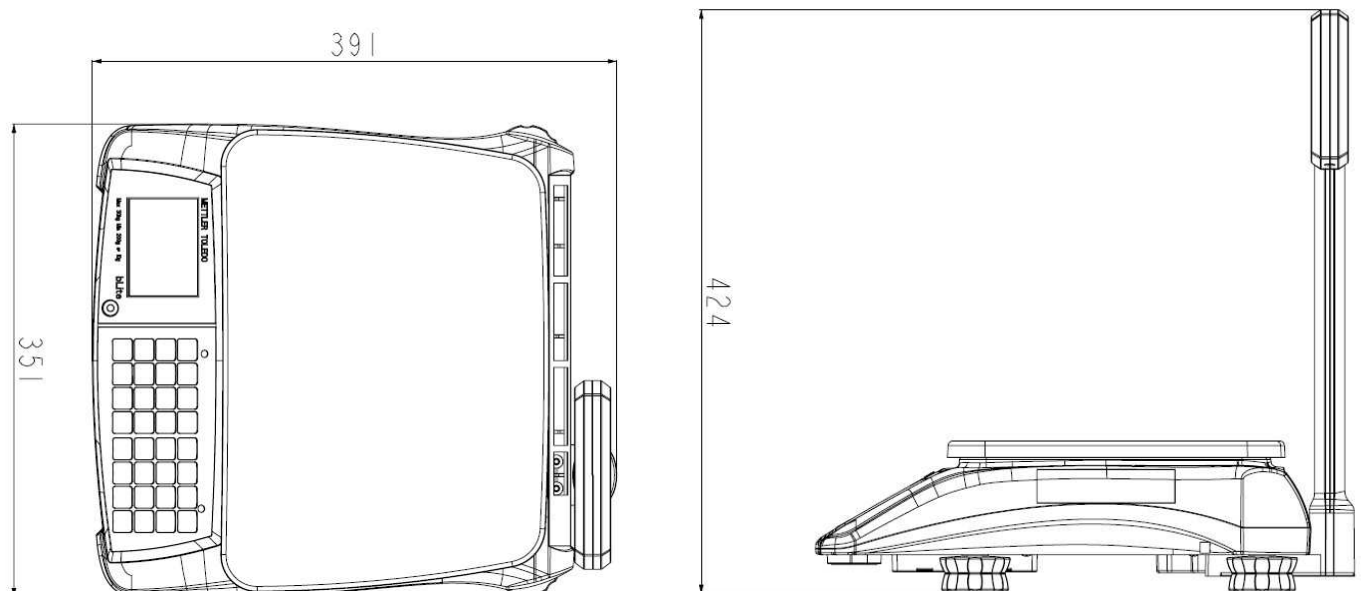


## ***Dimensions:***

### **Compact version:**



### **Tower version:**



## **INTRODUCTION**

This publication is provided solely as a guide for individuals who have purchased the METTLER TOLEDO BRite scale product.

METTLER TOLEDO®, Inc. 2010

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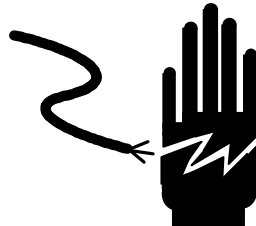

**METTLER TOLEDO RESERVES THE RIGHT TO MAKE REFINEMENTS  
OR CHANGES WITHOUT NOTICE.**

## Precautions

READ this manual  
BEFORE operating or  
servicing this  
equipment.

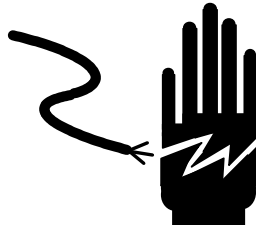

	<div data-bbox="887 208 1257 297"> <b>WARNING</b></div> <p data-bbox="762 309 1385 510">ONLY PERMIT QUALIFIED PERSONNEL TO SERVICE THIS EQUIPMENT. EXERCISE CARE WHEN MAKING CHECKS, TESTS AND ADJUSTMENTS THAT MUST BE MADE WITH POWER ON. FAILING TO OBSERVE THESE PRECAUTIONS CAN RESULT IN BODILY HARM.</p>
---	--

FOLLOW these  
instructions carefully.

	<div data-bbox="887 562 1257 651"> <b>WARNING</b></div> <p data-bbox="762 663 1385 786">FOR CONTINUED PROTECTION AGAINST SHOCK HAZARD, CONNECT TO A PROPERLY GROUNDED OUTLET ONLY. DO NOT REMOVE THE GROUND PRONG.</p>
---	---

STORE this manual  
for future reference.

DO NOT allow  
untrained personnel to  
operate, clean,  
inspect, maintain,  
service, or tamper with  
this equipment.

	<div data-bbox="887 837 1257 927"> <b>WARNING</b></div> <p data-bbox="751 938 1366 1095">DISCONNECT ALL POWER TO THIS UNIT BEFORE REMOVING THE FUSE OR SERVICING. FAILURE TO DO SO MAY RESULT IN BODILY INJURY OR PROPERTY DAMAGE.</p>
--	---

ALWAYS  
DISCONNECT this  
equipment from the  
power source before  
cleaning or performing  
maintenance.

<div data-bbox="746 1140 1114 1229"> <b>CAUTION</b></div> <p data-bbox="467 1240 1390 1464">BEFORE CONNECTING/DISCONNECTING ANY INTERNAL ELECTRONIC COMPONENTS OR INTERCONNECTING WIRING BETWEEN ELECTRONIC EQUIPMENT ALWAYS REMOVE POWER AND WAIT AT LEAST THIRTY (30) SECONDS BEFORE ANY CONNECTIONS OR DISCONNECTIONS ARE MADE. FAILURE TO OBSERVE THESE PRECAUTIONS COULD RESULT IN DAMAGE TO OR DESTRUCTION OF THE EQUIPMENT OR BODILY HARM.</p>
--

Call METTLER  
TOLEDO for parts,  
information, and  
service.

<div data-bbox="727 1509 1137 1621"> <b>CAUTION</b></div> <p data-bbox="480 1632 1106 1700">OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATICALLY SENSITIVE DEVICES.</p>
--

**GEO-Value**

The GEO-Value of verified balances explains for which usage location the balance has been verified. This GEO-Value is shown on the balance total price display shortly after the balance is turned on.

Further details are shown in the “GEO-Value table” below.

**GEO-Value Table**

<b>Country</b>	<b>Geo-Width</b>	<b>Geo-Value (default)</b>
Austria	46°22' – 49°01'	18
Belgium	49°30' – 51°30'	20
Bulgaria	41°41' – 44°13'	16
Croatia	42°24' – 46°32'	18
Czech Republic	48°34' – 51°03'	20
Denmark	54°34' – 57°45'	23
France	41°20' – 51°00'	19
Finland	59°48' – 70°05'	25
Germany	47°00' – 55°00'	20
Greece	34°48' – 41°45'	15
Hungary	45°45' – 48°35'	19
Ireland	51°05' – 55°05'	22
Iceland	63°17' – 67°09'	26
Italy	35°47' – 47°05'	17
Latvia	55°30' – 58°04'	23
Luxembourg	49°27' – 50°11'	20
Liechtenstein	47°03' – 47°14'	18
Lithuania	53°54' – 56°24'	22
Netherlands	50°46' – 53°32'	20
Norway	57°57' – 71°11'	24
Poland	49°00' – 54°30'	21
Portugal	36°58' – 42°10'	15
Romania	43°37' – 48°15'	18
Sweden	55°20' – 69°04'	24
Switzerland	45°49' – 47°49'	18
Slovakia	47°44' – 49°46'	19
Slovenia	45°26' – 46°35'	18
Spain	36°00' – 43°47'	15
Turkey	35°51' – 42°06'	16
United Kingdom	49°00' – 62°00'	21

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# 1. Introduction

## 1.1. Overview

Target customers for BRite are:

- Small store businesses
- Open Markets

All our equipment is assembled, tested and packed with great care. If you find that aspects of our quality do not meet your expectations, please contact METTLER TOLEDO immediately.

BRite scales are high-precision weighing instruments, which are approved and certified by weights and measures authorities. This scale is certified in our production plant or by your local weights & measures office. Please check the certification stickers on the scale before use.

Read this service manual carefully.

If properly used and maintained, the scale will provide years of accurate weighing. Please handle it as you would any piece of precision electronic equipment.

The information contained in this manual is believed to be accurate at the time of publication, but METTLER TOLEDO assumes no liability arising from the use or misuse of this material. Reproduction of this material is strictly prohibited. Material in this manual is also subject to change.

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## 1.2. Service Facilities

To service a scale, the service area should meet the following requirements:

- Should be temperature controlled and meet scale specifications for ambient temperature requirements.
- Must be free of vibrations, such as fork lift trucks close by large motors, air currents or drafts from air conditioning/heating ducts, open windows, people walking by, fans, etc.
- Area must be clean and free of excessive dust.
- Work surface must be stable and level.
- Scale must not be exposed to direct sunlight or radiating heat sources.
- Use an approved electro-static device.

## 1.3. Tools & Test equipment required

- Common hand tools are sufficient to disassemble BRite price computing scales.

### Metrological instructions



Important legal note-for-trade scales in EEC countries



Factory-verified scales carry this identification on the label applied on the package.



Scales identified by the green "M" label applied on the identification plate can be operated immediately.



Scales calibrated in two stages carry the opposite identification on the label applied on the package

These scales have already been verified in the first step (declaration of conformity according to EN 45501-8.2) and should receive the second step at their place of use.

This second step must be performed by the certified METTLER TOLEDO after-sales service.

Please contact your local METTLER TOLEDO agency.

Retail scales, used for legal trade, must be submitted for calibration and verification.

Please respect and observe the current metrological directives in your country.

## 1.4. System Specifications

BRite family consists of two products lines: BRite standard and Advanced.

- The specifications of the BRite are listed in the below table.
- After servicing the scale, the below specifications must be met.

### 1.4.1. BRite standard

Item	Futures
Display	LCD with backlight; 6-digit weight, 6-digit unit price, 6-digit total price
Key	32 membrane keys
Preset key	16 keys; one key can store one PLU (no double layer presets)
Stainless pan	240 x 337 mm (trapezoid shape)
PLU quantity	50
Power	100~240VAC, 50/60HZ or 6VDC/4.5Ah lead-acid rechargeable battery (option)
Gross weight / net weight	Gross weight: 6.10kg; Net weight: 4.20kg
Shipping box (L x W x H)	480mm x 465mm x 180mm
Working environment	Temperature: -10C~40C; Humidity: 85%RH, non-condensation
Storage environment	Temperature: -25C~50C; Humidity: 85%RH, non-condensation
Weighing function	Zero, Tare, 100g*, change*, Hold*, Euro*, 1/2lb*, 1/4lb*, kg/lb*
Communication	None
Software update	Through RS-232

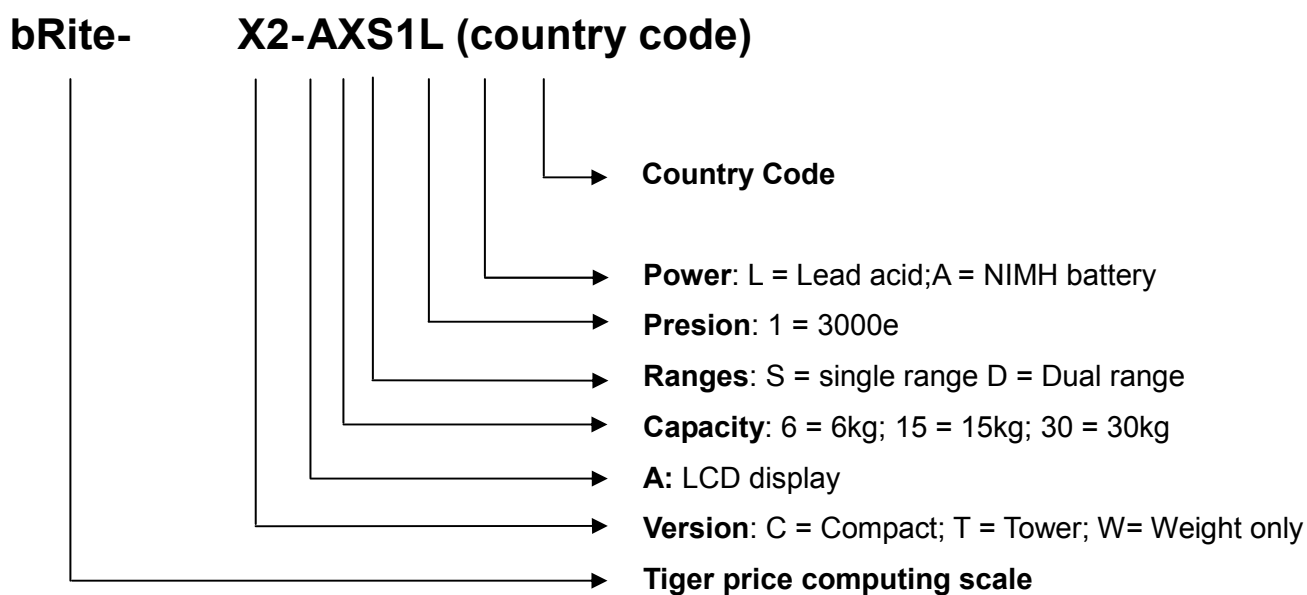
### 1.4.2. BRite Advanced

Item	Futures
Display	LCD with backlight; 6-digit weight, 6-digit unit price, 7-digit total price, 4-digit tare display
Key	32 light touch keys
Preset key	16 keys, every key can store 2 PLUs
Stainless pan	240 x 337 mm (trapezoid shape)
PLU quantity	100
Power	100~240VAC, 50/60HZ or 6 NIMH or D-cell batteries
Gross weight / net weight	Tower version: Gross weight: 5.54 kg; Net weight: 3.73 kg Compact version: Gross weight: 5.23 kg; Net weight: 3.42 kg
Shipping box (L x W x H)	480mm x 465mm x 180mm
Working environment	Temperature: -10C~40C; Humidity: 85%RH, non-condensation
Storage environment	Temperature: -25C~50C; Humidity: 85%RH, non-condensation
Weighing function	Zero, Tare, 100g, charge*, Hold*, Euro*, 1/2lb*, 1/4lb*, kg/lb*
Communication	RS232/USB
Software update	Through RS-232

\* Not available in all countries.



## 1.5. Model Configuration



## 1.6. Approval Documentation

- OIML
- CE
- NTEP
- FCC
- UL
- CB

## 1.7. Accessories

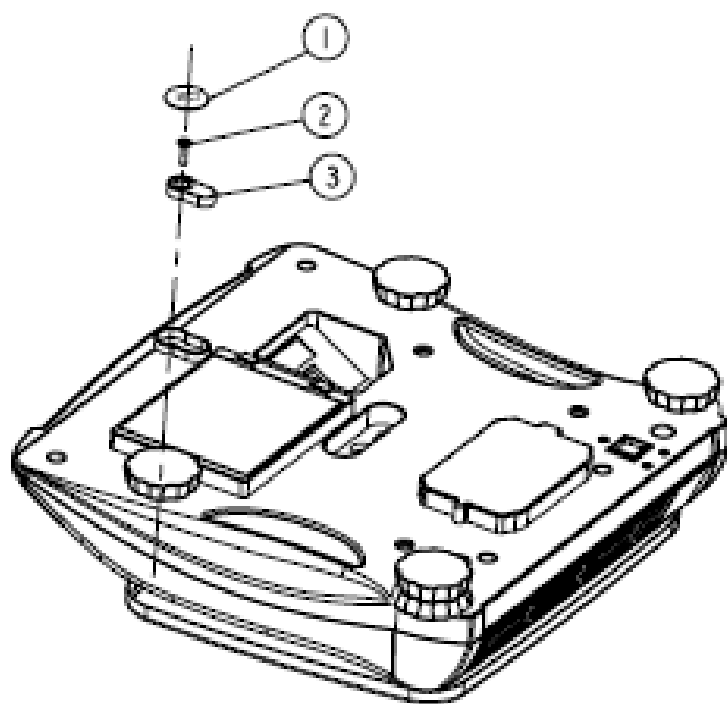
Description	CIMF number
Lead acid rechargeable battery	72168359
NIMH rechargeable battery (6 pcs)	72151831
Plastic cover for pan	72247039
Plastic cover for housing	72247038
External Printer	72248934
Ticket	72181866
RS232 cables	72237981
USB cables	72237984

## 1.8. Sealing

After installation is completed, legal-for-trade applications require that the enclosure is sealed with a sticker. Metrological relevant settings can not be adjusted without breaking the sealing.

**Attention:**

Assuming the user is to use the (non-automatic) scales/balance in the legally regulated field, the user will be responsible for notifying the appropriate calibration authorities of the repaired scales/balance, so that the latter can take the appropriate measures (calibration/recalibration).



1. Sealing sticker
2. Sealing screw
3. Sealing cover

## 1.9. Keyboard

Keyboard layouts by region:

### 1.9.1. BRite standard Keyboard

Europe's keyboard



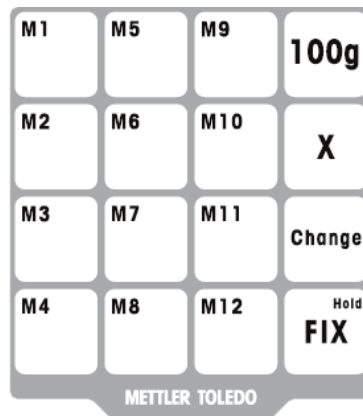
Europe's preset card



Other country's keyboard



Other Countries' Preset Card



### 1.9.2. BRite Advanced Keyboard

Europe's keyboard



Other countries' keyboard



## 1.10. Battery

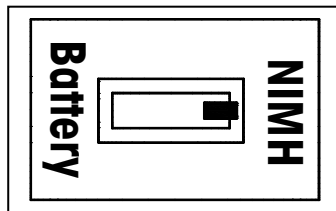
BRite standard Series can only use lead acid batteries. BRite Advanced Series can be operated by using NIMH and D-cell batteries.

- **BRite standard: Lead acid battery, 6V 4.5 Ah rechargeable battery**
- **BRite Advanced: NIMH battery, 1.2 V 7000 mAh rechargeable battery**

**BRite Advanced** provides the alternative to use NIMH and D-cell batteries.



When using rechargeable batteries the battery switch located on the bottom side of the device needs to be switched to NimH. Default position of switch is NimH as indicated on picture. If the switch is in this position (as indicated on the below drawing) **ONLY** rechargeable NIMH battery of size UM1 should be used.



If you want to use D-Cell, push the switch to the D-cell side. In this status, charging function is disabled automatically.

## **2. Installation**

Before installing your BRite scale, identify the best location for your new equipment. A suitable installation environment enhances operation and ensures a long life of the scale. Keep in mind the following factors, which might have a negative influence on the scale's performance:

- Vibration diminishes the scale's ability to measure accurately. Excessive vibration from equipment such as conveyors can cause inaccurate and non-repeatable readings.
- Be sure the scale is leveled properly.
- Air currents can also diminish a scale's performance.
- Avoid placing the scale in front of or directly under air vents.
- Other than items being weighed, avoid any objects rubbing or pressing against any part of the scale.

### **2.1. Safety Precautions**

In order to prevent accidents at work, the installer is required to take actions, directions and measures that comply with the general regulations for the prevention of industrial accidents, all other valid regulations for the prevention of accidents and with all other generally recognized regulations relating to safety and occupational health.

### **2.2. Ambient Conditions**

The right location is critical to weighing accuracy. Ideal locations comply with the following conditions:

- No shocks and vibrations.
- No excessive temperature fluctuations.
- No direct sunlight.
- Select a vibration-free location for your scale.

## **3. Entering Operator Configuration Setup**

Modification of operational setup parameters will allow adjusting the functionality of the system to working requirements.

Enter Setup:

1. When unit price is 0, Press the Manu key for around 3 seconds.
2. After hearing a long beep, the display will show "SET 1 OP".
3. Push ON/OFF key to enter operator configuration.

### 3.1. Setup Navigation

The system is structure in 5 major setup categories:

- Set 1: Operational Setup
- Set 2: Scale Configuration Setup
- Set 3: Calibration Setup
- Set 4: Precision measurement (manufacturing)
- Set 5\*: Date & Time Setup

\* Only for Advanced line.

Setup Navigation keys:

BRite standard



BRite Advanced



Enter Setup & Leave Setup\*



Enter Setup Group & Select the Parameters



Go up



Go down

\* Leave Setup:

Go back to the first level manual when you press menu key one time; when you press this key two times, you can choose SAVE or ABORT all parameters which you set.

## 3.2. Entering Operational Setup

1. When unit price is 0, Press the Menu key for around 3 seconds.
2. After hearing a long beep, the display will show "SET 1 OP".
3. Press ON/OFF key to enter the Operational Setup Group.

### Operational Settings Summary:

#### BRite standard Series:

Step	Function	Explanation	Default
1	Initialize to Defaults (only for operation configuration)	ON: Initialize softswitch parameters to the defaults	
		OFF: Scale will not initialize scale softswitch parameters	X
2	Buzzer	OFF: No sound when a key is pressed	
		ON: Strong volume when key is pressed	X
3	Backlight	OFF: No backlight	X
		ON: Strong backlight	
4	Automatic power off and Total power off time	0: Disable both sleep & power off function	
		1: No sleep function, auto power off after 30 Minutes of non-use	
		2: Sleep function after 5 minutes of non use; no auto power off	
		3: Sleep function after 5 minutes of non-use, Auto power off after 30 minutes of non-use	
		4: Sleep function after 15 minutes of non-use, no auto power off	
5	Auto-clear of Tare and Unit	5: Sleep function after 15 minutes of non-use, Auto power off after 30 minutes of non-use	X
		ON: Enables automatic clearing when weight is removed from platter	X
6	Prepack / Fix Mode Enable	OFF: Disables automatic clearing when the weight is removed from platter	
		ON: Enables Prepack/Fix mode	X
7	Auto PLU	OFF: Disables Prepack/Fix mode	
		ON: Search PLU automatically	
8	Digital Filter Selection	OFF: Search PLU after depressing the PLU key	X
		0: Light digital filtering	
		1: Medium digital filtering	X
9	Charge	2: Heavy digital filtering.	
		ON: Enable battery charge	X
10	Function keys	OFF: Disable battery charge	
		0 = Total Function keys are disabled	X
11	PLU Enable	1 = Total Function keys are enabled	
		ON: Enables the storage of unit price	X
12	By-Count/X Mode Enable	OFF: Disables this feature	
		ON: By-count pricing is enabled	X
13	EURO Phase **	OFF: By-count pricing is disabled	
		1= Phase 1	X
		2= Phase 2	
		3= Phase 3	
		4= Phase 4	

\*\* Only available in specific regions

**BRite Advanced Series:**

Step	Function	Explanation	Default
1	Initialize to Defaults (only for operation configuration)	ON: Initialize softswitch parameters to the defaults	
		OFF: Scale will not initialize scale softswitch parameters	X
2	Buzzer	OFF: No sound when a key is pressed	
		ON: Strong volume when key is pressed	X
3	Backlight	OFF: No backlight	X
		ON: Strong backlight	
4	Automatic power off and Total power off time	0: Disable both sleep & power off function	
		1: No sleep function, auto power off after 30 Minutes of non-use	
		2: Sleep function after 5 minutes of non use; no auto power off	
		3: Sleep function after 5 minutes of non-use, Auto power off after 30 minutes of non-use	
		4: Sleep function after 15 minutes of non-use, no auto power off	
		5: Sleep function after 15 minutes of non-use, Auto power off after 30 minutes of non-use	X
5	Auto-clear of Tare and Unit	ON: Enables automatic clearing when weight is removed from platter	X
		OFF: Disables automatic clearing when the weight is removed from platter	
6	Prepack / Fix Mode Enable	ON: Enables Prepack/Fix mode	X
		OFF: Disables Prepack/Fix mode	
7	Auto PLU	ON: Search PLU automatically	
		OFF: Search PLU after depressing the PLU key	X
8	Digital Filter Selection	0: Light digital filtering	
		1: Medium digital filtering	X
		2: Heavy digital filtering.	
9	Charge	ON: Enable battery charge	X
		OFF: Disable battery charge	
10	Function keys	0 = Total Function keys are disabled	
		1 = Total Function keys are enabled	X
11	PLU Enable	ON: Enables the storage of unit price	X
		OFF: Disables this feature	
12	By-Count/X Mode Enable	ON: By-count pricing is enabled	X
		OFF: By-count pricing is disabled	
13	EURO Phase **	1= Phase 1	X
		2= Phase 2	
		3= Phase 3	
		4= Phase 4	
14	Two PLU in one preset key	ON: Two PLUs can be preset in one preset key	X
		OFF: Only one PLU can be pre-set in one preset key	
15	Communication Port	0: RS232	X
		1: USB	
16	Communication Type	0: Protocol	X
		1: Printer	
17	Ticket Language	0 = English	X
		1 = French	
		2 = Germany	
		3 = Spanish	
		4 = Italian	
18	RS232 Communication Speed	0= 1200bps	
		1= 2400bps	
		2= 4800bps	
		3= 9600bps	X
		4= 19200bps	



		5= 38400bps	
		6= 57600bps	
19	Data bits, Parity, Stop bits	0= 7, Even, 1	
		1= 7, Odd, 1	
		2= 7, No, 1	
		3= 8, No, 1	X
		4= 7, Even, 2	
		5= 7, Odd, 2	
		6= 7, No, 2	
		7= 8, No, 2	
20	Protocol	0= CAS (Price computing)	
		1= Avery Berkel (Price computing)	
		2= Dialog 06 (Price computing)	X
		3= L2 METTLERr Toledo (Price computing)	
		4= Anker (Price computing)	
		5= Dialog 02/04 (Price computing)	
		6= NCI_Protocol (Price computing)	
21	VAT	ON= Price is with VAT	X
		OFF=Price is without VAT	
22	VAT key	0= VAT key disable	X
		1= VAT key enabled	
23	PLU Tare Enable	ON: Enables storage of tare with the unit price*	X
		OFF: Disables this feature	

\* Depending on geography default is on or/off

\*\* Only available in specific regions

### 3.3. Entering Scale Configuration Setup

1. When unit price is 0, Press the Manu key for around 3 seconds.
2. After hearing a long beep, the display will show "SET 1 OP".
3. Press the Tare key to go down to set 2, then press ON/OFF key.
4. Display messages: Press Seal.
5. Break the sealing located under the scale. Press the calibration button to enter the configuration, display will show: STEP 1.

**For more information on settings & scale functionality, please refer to below form.**

#### **BRite standard Series:**

Step	Function	Explanation
1	Country	Detail in the section "specification by country"
2	Initialize to Defaults	YES: Initialize softswitch parameters to the defaults NO: Scale will not initialize scale softswitch parameters
3	Display comma or period	OFF: Use a "." in all weight and price data ON: Use a "," in all weight and price data
4	Decimal Point Position Select for Price Displays	Select the number of the digits (0, 1, 2, and 3) to be displayed to the right of the decimal point for the unit price and total price displays
5	No Content	
6	Enable Zero Cursor	ON: Enables zero cursor OFF: Disables zero cursor
7	Gross or Net Zero	ON: Zero cursor will be illuminated when the gross or net OFF: Zero cursor will be illuminated when the gross weight
8	Display uuuuu's When	ON: Show uuuuu's when weight is less than zero OFF: Show negative weight when under zero
9	Tare Enable	ON: Enables tare function OFF: Disables tare function
10	Chain Tare	Enable ON: Enables chain (multiple) tares OFF: Only one tare per transaction is allowed
11	Keyboard Tare Enable	ON: Tare can be entered via scale numeric keyboard OFF: The steady weight on the platter becomes the tare
12	Keyboard Tare Clear	ON: Tare can be cleared when the platter is empty OFF: Tare can not be cleared via the keyboard
13	Accumulate/+ Enable	ON: Enables Accumulator OFF: Disables Accumulator
14	Change Function Enable	ON: Enable change function OFF: Disable change function
15	Total Price Round	ON: Total price will be rounded OFF: Total price not round
16	Unit price multiplication	ON: Enable this function OFF: Disable this function
17	Hold function	ON: Enable this function OFF: Disable this function
18	1/2LB or 100g pricing	ON: Enable 1/2lb or 100g function OFF: Disable 1/2lb or 100g function
19*	1/4LB pricing enable	ON: Enable 1/4 lb function OFF: Disable 1/4 lb function
20*	Switch between LB & KG	ON: Enable this function OFF: Disable this function

\* Only available in specific regions

**BRite Advanced Series:**

Step	Function	Explanation
1	Country	Detail in the section "specification by country"
2	Initialize to Defaults	YES: Initialize softswitch parameters to the defaults NO: Scale will not initialize scale softswitch parameters
3	Display comma or period	OFF: Use a "." in all weight and price data ON: Use a "," in all weight and price data
4	Decimal Point Position Select for Price Displays	Select the number of the digits (0, 1, 2, and 3) to be displayed to the right of the decimal point for the unit price and total price displays
5	Currency	0= no currency 1= € 2= Fr. 3= Kr 4= \$ 5= £ 6= Rs 7= Zt 8 = T
6	Enable Zero Cursor	ON: Enables zero cursor OFF: Disables zero cursor
7	Gross or Net Zero	ON: Zero cursor will be illuminated when the gross or net OFF: Zero cursor will be illuminated when the gross weight
8	Display uuuuu's When	ON: Show uuuuu's when weight is less than zero OFF: Show negative weight when under zero
9	Tare Enable	ON: Enables tare function OFF: Disables tare function
10	Chain Tare	Enable ON: Enables chain (multiple) tares OFF: Only one tare per transaction is allowed
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14	Change Function Enable	ON: Enable change function OFF: Disable change function
15	Total Price Round	ON: Total price will be rounded OFF: Total price not round
16	Unit price multiplication	ON: Enable this function OFF: Disable this function
17	Hold function	ON: Enable this function OFF: Disable this function
18	1/2LB or 100g pricing	ON: Enable 1/2lb or 100g function OFF: Disable 1/2lb or 100g function
19*	1/4LB pricing enable	ON: Enable 1/4 lb function OFF: Disable 1/4 lb function
20*	Switch between LB & KG	ON: Enable this function OFF: Disable this function

\* This function only for special countries.

### 3.4. Time & Date Settings (BRite Advanced only)

1. Access Setup menu as described above
2. Press arrow up or down to set the time.
  - a. Year configuration: Press up or down arrow key to choose the accurate year. Then press on/off key.
  - b. Month configuration. Also use up or down arrow key to choose the digit. On/Off key to enter the Day setting process.
  - c. Day configuration: Same as year and month adjustment process.

\*

### 3.5. Country Default Configuration

Country	G E O	Country type	S1	S2		S3	S4	S5	S6
			Country	Initialize To Defaults	Ticket Lang	Display comma or periode	Decimal Point Position Select for Price Displays	Currency	Enable Zero Cursor
China	12	3	CN	1		,	2		1
Germany	20	0	DE	1	German	,	2	€	0
France	19	0	FR	1	French	,	2	€	0
USA	12	2	US	1	English	.	2	\$	1
Austria	18	0	AT	1	German	,	2	€	0
Spain/ Portugal	15	0	ES	1	Spanish	,	2	€	0
Belgium/ Netherlands	21	0	BE	1	French	,	2	€	0
Italy	17	0	IT	1	Italian	,	2	€	0
Swiss	18	0	CH	1	German	,	2	Fr.	0
Ukraine	21	3	UA	1	English	,	2		0
Russia	23	3	RU	1	English	,	2		0
Hungary	19	1	HU	1	English	.	0		0
Slovakia	19	1	SK	1	English	,	3	€	0
Czechia	20	1	CZ	1	English	,	1		0
Poland	21	1	PL	1	English	,	2	Zt	0
slovenia	18	0	SLO	1	English	,	2	€	0
Croatia	18	0	HR	1	English	,	2	€	0
England	21	3	GB	1	English	,	2	£	0
Kazakhstan	18	3	KZ	1	English	,	2	T	0
India	12	3	IN	1	English	,	2	Rs	1
Turkey	14	3	TR	1	English	.	2	TL	0
E-Port	12	3	E-Port	1	English	.	1	€	0

Country	G E O	Country type	S7	S8	S9	S10	S11	S12	S13
			Gross or Net Zero	Display uuuuu's When	Tare Enable	Chain Tare	Keyboard Tare Enable	Keyboard Tare Clear	Accumula te/+ Enable
China	12	3	0	0	1	1	0	0	1
Germany	20	0	0	0	1	1	1	1	0
France	19	0	0	0	1	1	1	1	0
USA	12	2	0	0	1	1	1	1	1
Austria	18	0	0	0	1	1	1	1	0
Spain/ Portugal	15	0	0	0	1	1	1	1	0
Belgium/ Netherlands	21	0	0	0	1	1	1	1	0
Italy	17	0	0	0	1	1	1	1	0
Swiss	18	0	0	0	1	1	1	1	0
Ukraine	21	3	0	0	1	1	1	1	0
Russia	23	3	0	0	1	1	1	1	0
Hungary	19	1	0	0	1	1	1	1	0
Slovakia	19	1	0	0	1	1	1	1	0
Czechia	20	1	0	0	1	1	1	1	0
Poland	21	1	0	0	1	1	1	1	0
slovenia	18	0	0	0	1	1	1	1	0
Croatia	18	0	0	0	1	1	1	1	0
England	21	3	0	0	1	1	1	1	0
Kazakhstan	18	3	0	0	1	1	1	1	0
India	12	3	0	0	1	1	0	1	1
Turkey	14	3	0	0	1	1	1	1	1
E-Port	12	3	0	0	1	1	0	1	0

Country	G E O	Country type	S14	S15	S16	S17	S18	S19	S0
			Change Function	Total Price Round	Unit price multiplicat ion	Hold function	1/2lb or 100g pricing	1/4Lb pricing enable	switch on kg/lb
China	12	3	1	0	1	1	1	0	0
Germany	20	0	1	0	1	0	1	0	0
France	19	0	1	0	1	0	1	0	0
USA	12	2	1	0	1	1	1	1	1
Austria	18	0	1	0	1	0	1	0	0
Spain/ Portugal	15	0	1	0	1	0	1	0	0
Belgium/ Netherlands	21	0	1	0	1	0	1	0	0
Italy	17	0	1	0	1	0	1	0	0
Swiss	18	0	1	1	1	0	1	0	0
Ukraine	21	3	1	0	1	0	1	0	0
Russia	23	3	1	0	1	0	1	0	0
Hungary	19	1	1	0	1	0	1	0	0
Slovakia	19	1	1	0	1	0	1	0	0
Czechia	20	1	1	0	1	0	1	0	0
Poland	21	1	1	0	1	0	1	0	0
slovenia	18	0	1	0	1	0	1	0	0
Croatia	18	0	1	0	1	0	1	0	0
England	21	3	1	0	1	0	1	0	0
Kazakhstan	18	3	1	0	1	0	1	0	0
India	12	3	1	0	1	1	1	0	0
Turkey	14	3	1	0	1	1	1	0	0
E-Port	12	3	1	0	1	1	1	0	0

**Table descriptions:****Setting meaning:**

0= OFF 1= ON

**County type is used for country area definition:**

- 0: West Europe
- 1: East Europe (only this country type has EUR function)
- 2: USA and Canada
- 3: Others

**3.6. External peripheral printer (optional only available on BRite Advanced)****How to connect the printer to scale:**

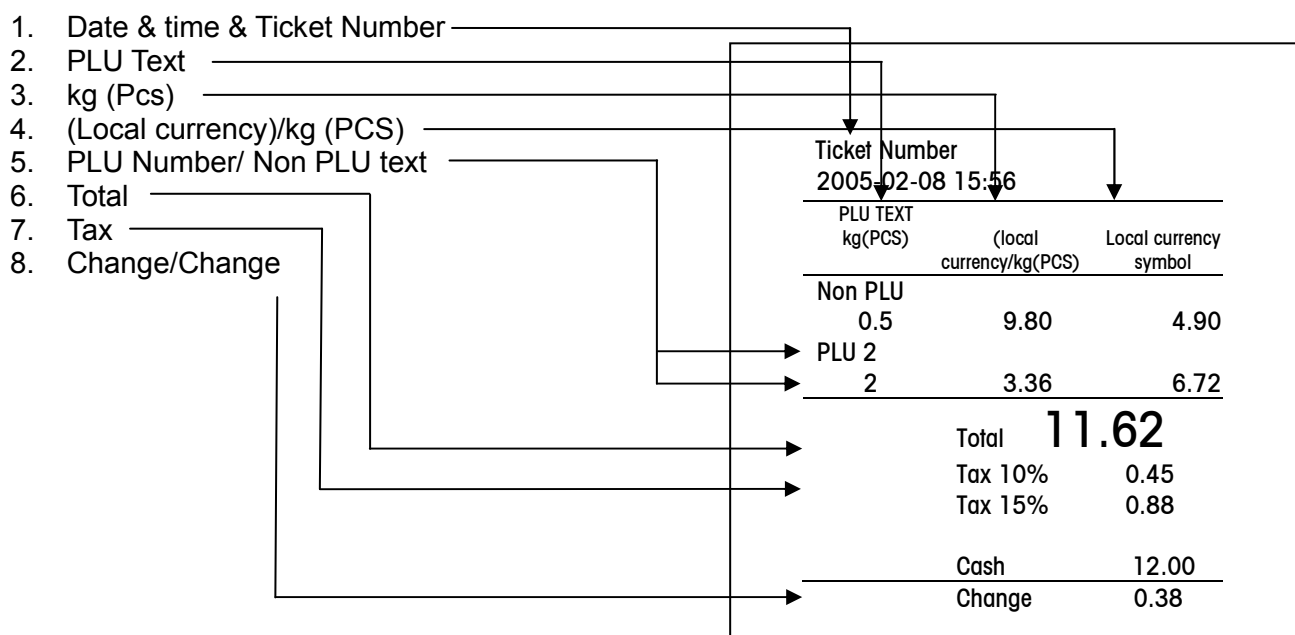
- Plug the printer power cable to socket.
- Use printer cable to connect the scale  
(RJ45 is connect with scale, RS232 is used for connecting with printer)

\* Please be aware that all transaction data is lost if the mainboard is exchanged.



METTLER TOLEDO does not take over any liabilities that come up due to the connection of printers not officially recommended by METTLER TOLEDO for the concerned product line. **Printers connected to the system & not officially recommended by METTLER TOLEDO might not be covered by the scale approval.** Get in contact with METTLER TOLEDO to obtain information about which peripheral printers are listed as officially supported products

Scale Memory: Up to 500 data sets can be stored on the system. Once the system reaches memory limits the oldest data record will be canceled automatically.

**Ticket data English****Ticket Layout Example**

### 3.7. Calibration

#### Important Note:

Assuming the user is to use the (non-automatic) scales/balance in the legally regulated field, the user will be responsible for notifying the competent calibration authorities of the repaired scales/balance, so that the latter can take the appropriate measures (calibration/recalibration).

#### Capacity and Increments

Weight unit	Resolution	Capacity (kg)	Increment (g)	Capacity of the load cell (kg)	Load Cell BOM
Kg	3000	3	1	5	72184999
		6	2	11	72186986
		15	5	22	72186876
		6/15	2/5	22	72184997
		30	10	40	72186879
	6000	12	2	22	72186875
		30	5	40	72186878

\* Offering dependent on geography

#### Calibration switch position:

The calibration switch is located in the base of the scales – next to the adapter housing.  
Please use a thin rod to press the calibration switch when sytem displays message “Press seal”.

#### Steps when breaking the seal:

1. Break the paper seal and unscrew the plastic cover fixation.
2. Take off the plastic cover.
3. Press the calibration switch with a thin rod.

#### Calibration steps:

Procedure	Description	Key operation	Display on 1st line	Display on 2nd line	Display On 3rd line	Display on the bottom line	Lit cursor
Step1	Weighing mode		0.000	0.00	0.00		
Step2		[Menu]				SET 1 OP	
Step3	Press T key until display show SET 3 CAL	[T]				SET 3 CAL	
Step4	Please press the calibration button	[on/off]				Press seal	
Step5	One beep indicate that the calibration button has been pressed, granting access to setup mode					SET	
Step6	Access to calibration setting	[on/off]				GEO	
Step7	Choose the accurate GEO	[T]				GEO ***	
Step8		[on/off]	CAL				
Step9	Choose Y to access to calibration setting	[T]	CAL Y				
Step10	Choose unit kg or lb	[on/off]	KG				
Step11	Choose ranges single or dual	[on/off]	sing				
Step12		[on/off]	CAP		precision		
Step13	Select the capacity	[T]	CAP		precision		
Step14	Capturing zero	[T]	-----				
Step15	Count down from 5 to 0 and go to next step automatically. If scale is not stable, will	[on/off]	5				



Procedure	Description	Key operation	Display on 1st line	Display on 2nd line	Display On 3rd line	Display on the bottom line	Lit cursor
	show 5 and not count down to find zero						
Step16	Put the weight on the platter (*valid weight is about 2/3 capacity)		Add **				
Step17	Count down from 5 to 0	[on/off]				Capture 0	
Step18	Choose save or abort calibrations	[T]	save				
Step19	Finish, and then turn on	[on/off]					

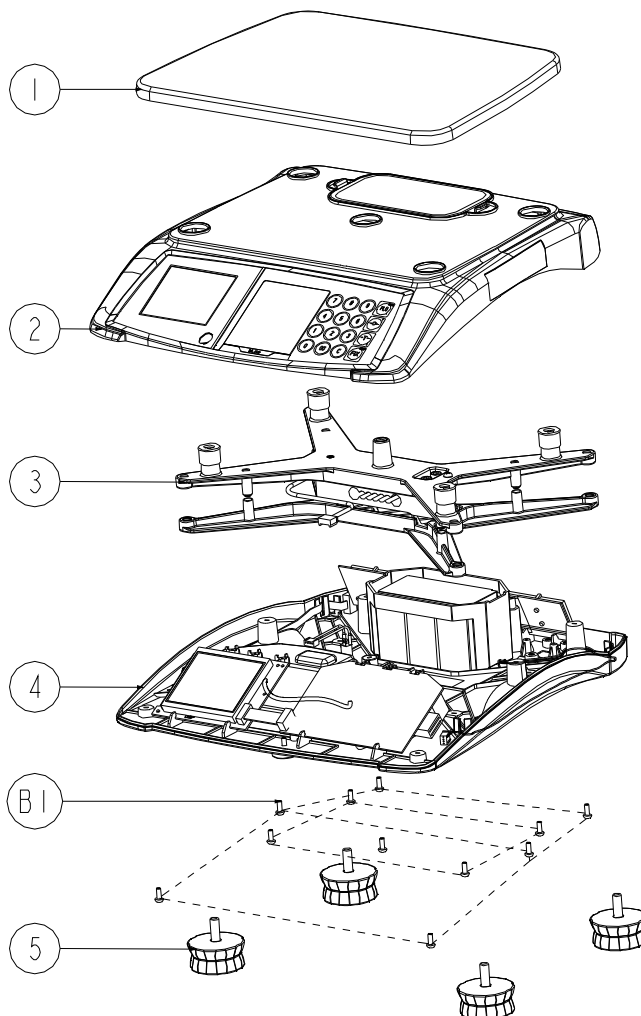
## 4. Scale structure

### 4.1. Explosion Drawings



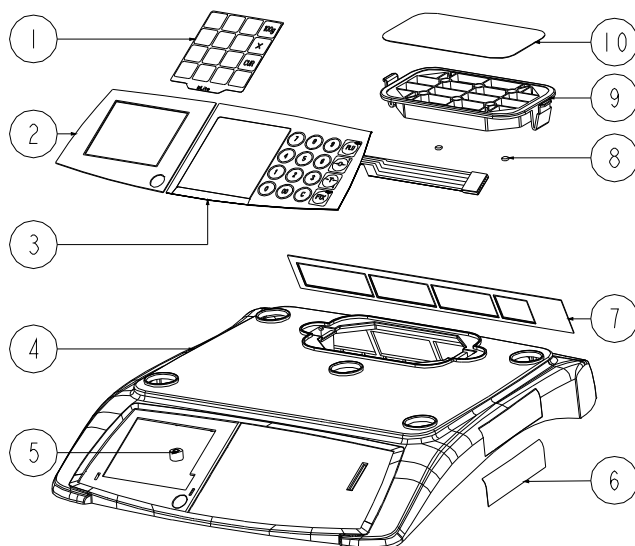
Only spare parts with order number can be ordered directly! For other product components contact METTLER TOLEDO to obtain more information. Spare parts offering is subject to change!

#### 4.1.1. BRite standard compact

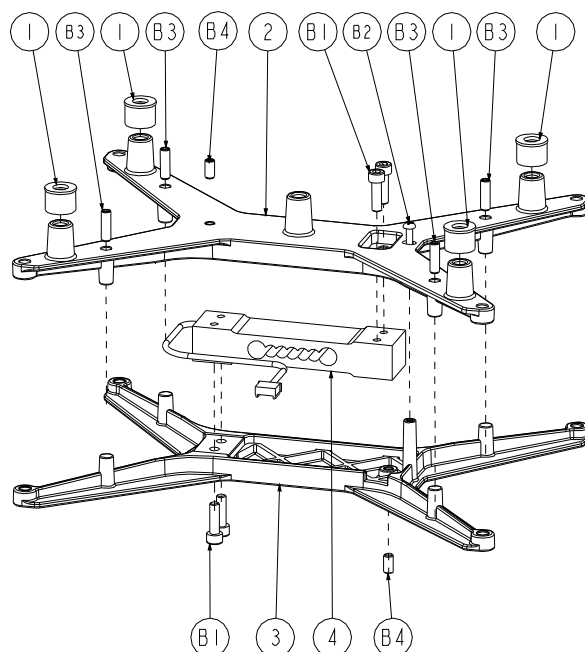


72245482\_S(Exploded drawing for Standard compact line)

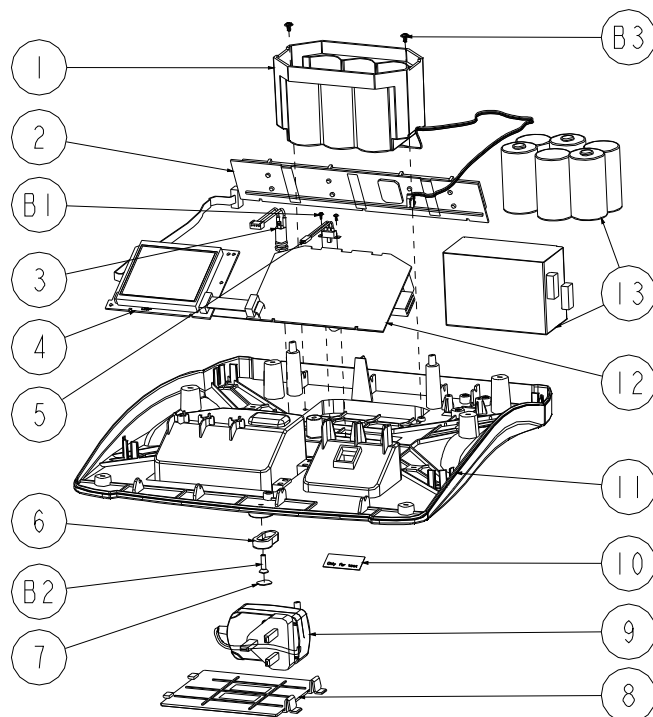
ITEM	MT-LOG No.	BOM	DESCRIPTION	QTY	NOTE
1	30211687	72231117	Platter,Spare Parts,bRite	1	
2		72231158_S	TOP COVER ASSEMBLE, BLITE	1	5000 series
3		72231157	SPIDER ASSEMBLE, BLITE	1	
4		72231159_C	BASE COVER ASSEMBLE, BLITE	1	COMPACT LINE
5	30763877	30763877	Feet, bRite	4	
B1		124080	SCREW GB818 M4X10_ZN.D	11	


**72231158\_S (Top cover assemble for standard line)**

ITEM	MT-LOG No.	BOM	DESCRIPTION	QTY	NOTE
1	72241857	72241857	Preset Card EU, bRite STD	1	
2	30209356	30209356	Display Lens, Operator, LCD, 15kg/5g, bRite STD	1	
	30209354	30209354	Display Lens, Operator, LCD, 6kg/2g, bRite STD		
	72257147	72257147	Display Lens, Operator, LCD, 6/15kg/5g/2g, bRite STD		
3	72231137	72231137	Keyboard EU, bRite STD	1	
4		72231120	TOP COVER, standard, LCD, bLite	1	
5	30211608	148625	Bubble, Spare Parts, bRite	1	
6		133333	NAMEPLATE	1	
7	72245973	30209357	Display Lens, Customer, LCD, 15kg/5g, bRite STD	1	
	30209355	30209355	Display Lens, Customer, LCD, 6kg/2g, bRite STD		
	72257149	72257149	Display Lens, Customer, LCD, 6/15kg/5g/2g, bRite STD		
8		131305	RUBBLE MAT	2	
9		72241559	NIMH COVER ASSEMBLE, BRITE	1	
10		72242087	LABEL FOR LEAD ACID, BRITE	1	

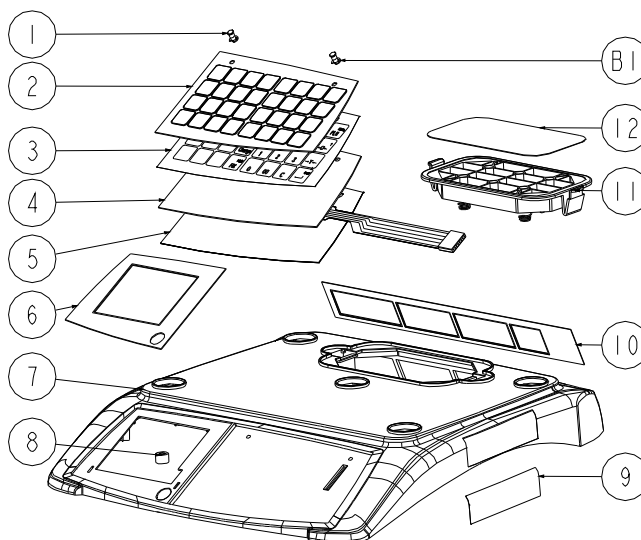


72231157 (Spider assemble for all kinds of AMI)					
ITEM	MT-LOG No.	BOM	DESCRIPTION	QTY	NOTE
1		133149	RUBBER MAT	4	
2		72231139	UP SPIDER, BLITE	1	
3		72231140	DOWN SPIDER, BLITE	1	
4	30211611	72186876	Load Cell,AMI-22KG,C3,Spare Parts,bRite	1	
5		72186878	Load cell, AMI40KG,C3, A	1	
6		72186875	Load cell, AMI22KG,C6, A	1	
B1		102503	SCREW GB70 M6X20-Zn.D	4	
B2		139298	SCREW GB818 M4X20-S.S	1	
B3		113256	SCREW GB79 M6X20-Zn.D	4	
B4		72202353	STOP SCREW M6X12, BN, BOSSARD	2	

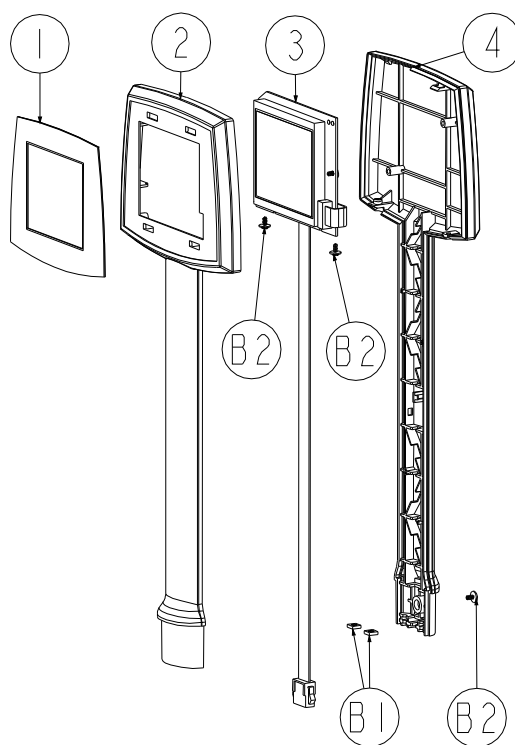

**72231159\_C (Base cover assemble for compact line)**

ITEM	MT-LOG No.	BOM	DESCRIPTION	QTY	NOTE
1	30211689	72231163	LEAD ACID HOUSE,Spare Parts,bRite	1	
2		72228054	CUSTOMER DISPLAY, bRite	1	
3		72238194	WIRING HARNESS, POWER PLUG,BLITE	1	
4		72244606	USER DISPLAY LCD, bRite	1	
5		153417	WIRING HARNESS , CHARGE ON/OFF,BLITE	1	
6		72192054	SEALING COVER,	1	
7		122206	LABEL,SEAL VERA	1	
8		72231123	ADAPTER COVER,bRite	1	
9	30211614	46001802+ 46001774	Adapter & Plug,Spare Parts,bRite	1	
10		72231126	LABEL,RS232,bRite	1	
11		72231121	BASE COVER, bRite	1	
12	30211691	72228052	MAINBOARD PCB,Spare Parts,bRite STD	1	
13	30211692	168359	Battery,6V,4.5AH,DJW6-4.5AH,bRite	1	
B1		151903	SELF SCREW GB845 ST2.2X4.5-Zn.D	2	
B3		127234	SCREW GB819 M4X16-Zn.D	1	
B4		129862	SELF SCREW GB845 ST2.9X9.5-Zn.D	2	

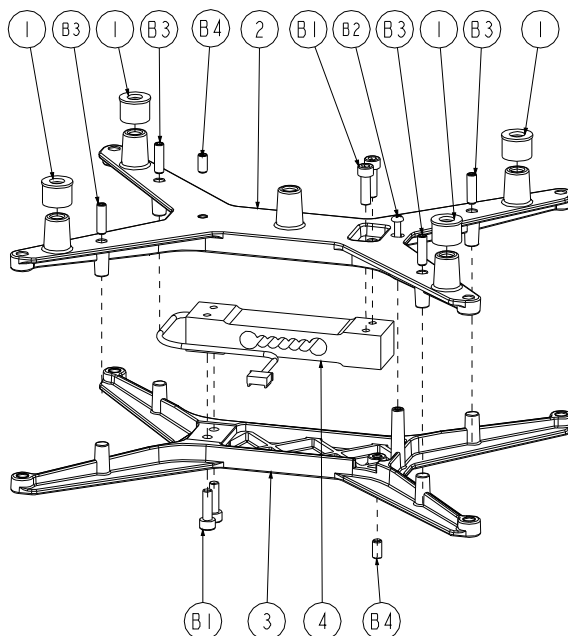
#### 4.1.2. BRite Advanced compact / tower version



Top cover assemble for Advanced line					
ITEM	MT-LOG No.	BOM	DESCRIPTION	QTY	NOTE
1	30211619	72186679	Keyboard Pin,Spare Parts,bRite ADV	1	
2	30211686	72231249	Keyboard Layer,Silicon,bRite ADV	1	
3	72241850	72241850	Keyboard Layer, Programmer, bRite ADV	1	
4	30211617	72231250	Keyboard Layer, Spare Parts,bRite ADV	1	
5	30211618	72231177	Keyboard Conductor,Spare Parts,bRite ADV	1	
	72231119	72231119	Keyboard bRite weight only	1	
6	30209360	30209360	Display Lens, Operator, LCD, 15kg/5g, bRite ADV	1	
	30209358	30209358	Display Lens, Operator, LCD, 6kg/2g, bRite ADV	1	
	72257150	72257150	Display Lens, Operator, LCD, 6/15kg/5g/2g, bRite ADV	1	
7			TOP COVER, advance,LCD,bLite	1	
8			BUBBLE φ11X7.5	1	
9			NAMEPLATE	1	
10	30209361	30209361	Display Lens, Customer, LCD, 15kg/5g, bRite ADV	1	
	30209359	30209359	Display Lens, Customer, LCD, 6kg/2g, bRite ADV	1	
	72241401	72241401	Display Lens, Customer, LCD, 6/15kg/5g/2g, bRite Weigh Only	1	
11	30211609	72231130	NiMH Battery Cover,Spare Parts,bRite ADV	1	
12			LABEL FOR NIMH ,BLITE	1	
B1			RING 3.2	2	

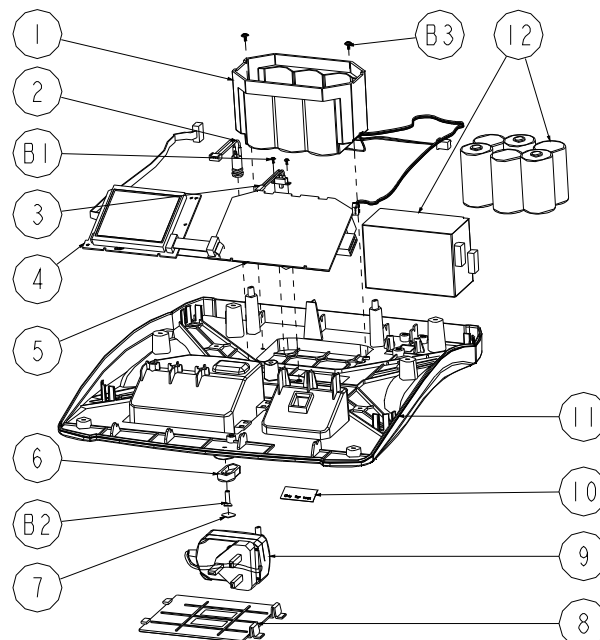


Tower assemble					
ITEM	Order No.	BOM	DESCRIPTION	QTY	NOTE
1	72257151	72257151	Display Lens Tower, Customer, LCD, 6/15kg/5g/2g, bRite ADV	1	
2			TOWER DISPLAY FRONT COVER,BLITE	1	
3	30211607	72244609	Tower Display, LCD,Spare Parts,bRite ADV	1	
4			TOWER DISPLAY BACK COVER,BLITE	1	
B1			NUT GB39 M4_Zn.D	1	
B2			SELF SCREW GB845 ST2.9X6.5_Zn.D	1	

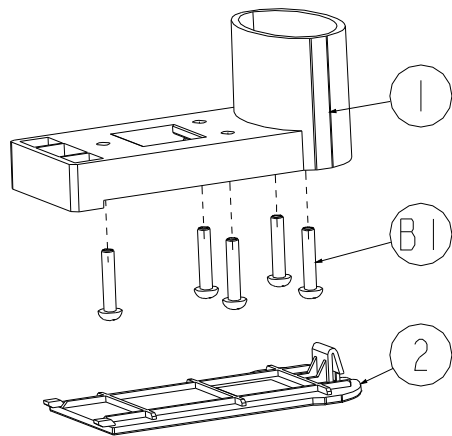

**72231157(Spider assemble for all kinds of AMI)**

ITEM	Order No.	BOM	DESCRIPTION	QTY	NOTE
1			RUBBER MAT	4	
2			UP SPIDER, BLITE	1	
3			DOWN SPIDER, BLITE	1	
4	30211611	72186876	Load Cell,AMI-22KG,C3,Spare Parts,bRite	1	
5			Load cell, AMI40KG,C3, bRite	1	
6	30211612	72184997	Load Cell,AMI-22KG,C3X2,bRite	1	
B1			SCREW GB70 M6X20-Zn.D	4	
B2			SCREW GB818 M4X20-S.S	1	
B3			SCREW GB79 M6X20-Zn.D	4	
B4			STOP SCREW M6X12 , BN , BOSSARD	2	





Base cover assemble					
ITEM	MT-LOG No.	BOM	DESCRIPTION	QTY	NOTE
1	30211689	72231163	LEAD ACID HOUSE,Spare Parts,bRite	1	
2	30211690	72238194	WIRING HARNESS,Spare Parts,bRite	1	
3			WIRING HARNESS , CHARGE ON/OFF,BLITE	1	Only advanced line
4	30211605	72246643	Operator Display,Spare Parts,bRite ADV	1	
	30211606	72237951	Customer Display,Spare Parts,bRite ADV	1	
5	30211615	72231934	Mainboard PCB,Spare Parts,bRite ADV	1	
6			SEALING COVER,bRite	1	
7			LABEL,SEAL VERA	1	
8		72231123	ADAPTER COVER,BLITE	1	
9	30211614	46001802+ 46001774	Adapter & Plug,Spare Parts,bRite	1	
10			LABEL,RS232,BLITE	1	
11			BASE COVER,BLITE	1	
12	30211692	168359	Battery,6V,4.5AH,DJW6-4.5AH,bRite	1	
B1			SELF SCREW GB845 ST2.2X4.5-Zn.D	2	
B3			SCREW GB819 M4X16-Zn.D	1	
B4			SELF SCREW GB845 ST2.9X9.5-Zn.D	2	



Tower base assemble					
ITEM	Order No.	BOM	DESCRIPTION	QTY	NOTE
1			TOWER BASE, BLITE	1	
2			TOWER BASE COVER, BLITE	1	
B1			SCREW GB818 M4X20_S.S	5	

## 5. Maintenance

### 5.1. Preventive Maintenance

METTLER TOLEDO scales are precision instruments which should be handled carefully, stored in a clean, dry, dust-free area, and cleaned periodically. Follow these precautionary steps:

- When a scale has had chemicals or liquids spilled on it, all exterior surfaces should be cleaned as soon as possible with warm water on a damp cloth.
- Do not leave any weights on the scale when the scale is not in use.
- Allow time for the scale to stabilize after moving it from an area which is at a different temperature than the area where it is to be operated. Allow one hour for each 5°F (2.7°C) temperature change before using the scale. After temperature stabilization, allow an additional 20 minutes after turning the scale on, for the scale electronics to stabilize.

#### Preventive Maintenance Checklist

The scale should be inspected and checked regularly, as follows:

- Clean the outside of the scale using a damp cloth with warm water.

#### CAUTION:

DO NOT USE CHEMICAL CLEANERS OR SOLVENTS OF ANY TYPE. SOME CLEANERS ARE ABRASIVE AND MAY AFFECT THE SCALE'S FINISH.

- Check to ensure that the power cord is not broken and has no damaged insulation.
- If using batteries and the scale malfunctions, first replace the batteries to see if this resolves the problem.
- Make a visual inspection for faulty connectors, wiring, and loose hardware.

### 5.2. Troubleshooting

This section of the manual contains troubleshooting information. It includes information to isolate specific problems step by step. Before doing any such work, make certain that your working area is clean, that you handle all scale components with care, and that you use a suitable electro-static device.

#### Diagnostic Guide:

##### Scale inoperative/ blank displays

1. Check voltage on power supply. If voltage at outlet is zero, replace power supply.
2. Check whether the harnesses are properly connected.
3. Try to press the keyboard. If you can hear a beep while pressing the keyboard, replace the display. Otherwise please replace the mainboard.

##### Keyboard inoperative

1. Check keyboard connection on main board, ensuring it is securely plugged in.
2. If all connections are secure and keyboard is inoperative, replace keyboard.

##### Can't communicate via RS232 with peripheral printer

1. Check the scale version. Only BRite Advanced has this function.
2. Check Operational setup parameters:
  - Communication port STEP 15 must be set to RS232
  - Communication type STEP 16 should be set to Printer
  - Check if Communication speed STEP 18 & Data Bits, STEP 19 are set to default settings
  - Check if a printer recommended by METTLER TOLEDO for this scale is connected to the scale
  - Check if peripheral printer is switched on and has enough power
3. If all parameters are correct, please

- Replace the RS232 cable.
- Check printer functionality by trying to print a printer system status report. (See documentation printer)
- Replace the main board

### Print white paper

1. Check the harness, ensuring it is secure.
2. Replace the printer.
3. If it is still inoperative, replace mainboard.

### Can't communicate via RS232 or USB with POS system

1. Check the scale version. Only BRite Advanced has this function.
2. Check Operational Setup parameters
  - Communication port STEP 15 must be set to RS232 or USB depending on the connection strategy. Make sure that the setting matches with the connector cable used to build the connection between scale & POS
  - Communication type STEP 16 should be set to Protocol
  - Verify whether the same communication protocol is selected on scale & POS (STEP 20 allows the selection of the protocol)
  - Verify if POS & printer are using recommended stop bits & communication speed, Verify whether stop bits & communicationspeed are the same on Pos & Scale (STEP 18,19)

### Weighing result not stable

1. Check load cell harness.
2. Check whether there is something touching the load cell.
3. Replace the AD board or load cell.

## 5.3. Error Shooting

Error messages indicate serious hardware malfunctions. The error table below lists error codes & their problem solutions.

Error	Reason	Solution
E11	RAM error	Call METTLER Toledo service
E16	ROM error	
E18	EEPROM error	
No PLU	PLU not found	Program PLU
nnnnnn in weight display	Over capacity	Remove weight from Platter
uuuuuu in weight display	Negative weight	Re-zero the scale

## 5.4. Diagnosis

1. Isolate and identify the symptom.
2. Refer to the diagnostic guide and locate the symptom  
(Please also refer to the Troubleshooting chapter).
3. Follow the suggested remedies in the order they appear.
4. Perform the indicated checks, or refer to the appropriate section of the manual.
5. Repair or replace the defective section of the scale.

### NOTE:

If more than one symptom is observed, approach one area at a time, and remember that the symptoms may be interrelated.

If a problem arises that is not covered in this manual, contact us for further information.

## 6. Replacing parts

Before servicing the scale, always unplug the power cord from the scale.

Only qualified service staff may open the scale for service purposes.

Be aware of any static charges and wear a static-proof wrist belt when touching the PCB.

### 6.1. Service Preparation

Use the below procedures to replace the main board, display, load cell and keyboard.

#### Important Notice:

Assuming the user is to use the (non-automatic) scales/balance in the legally regulated field, the user will be responsible for notifying the appropriate calibration authorities of the repaired scales/balance, so that the latter can take the appropriate measures (calibration/recalibration).

After replacing the main board or parts used in the actual measurement process, the following steps must be performed:

- Check & set the local geo code setting (geo code for the region in which the product is to be used)
- Check calibration reproducibility, linearity, eccentricity
- Apply local currency/country setting

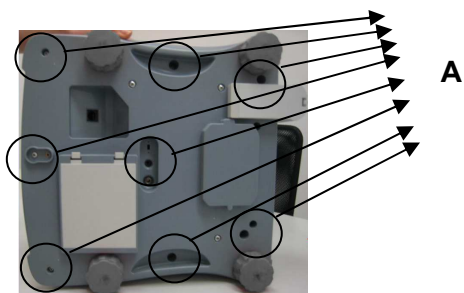
#### Preparations before opening the housing (if possible):

- Note settings (Country, Geo code, Decimal point)
- Verify installed SW version

**The repair of the scale requires common hand tools:**

## 6.2. Opening of the Housing

Important notice: **Please refer to the service preparations chapter before opening the housing.**



### Procedure for opening the housing:

1. Open the top cover. Unscrew the 8 bolts **A** (7 screws, 1 sealing screw).
2. Remove plastic cover carefully to not destroy keyboard or display connectors

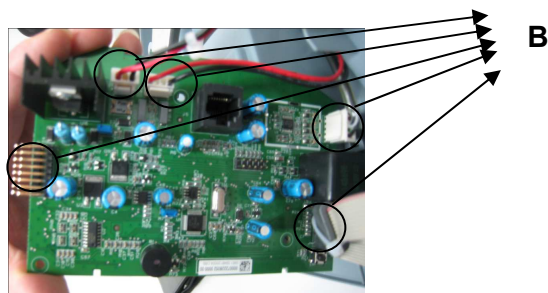


When opening and removing the top housing, display & keyboard are still connected to the mainboard. The housing can only be opened by destroying the metrology sealing. Assuming the user is to use the (non-automatic) scales/balance in the legally regulated field, the user will be responsible for notifying the appropriate calibration authorities of the repaired scales/balance, so that the latter can take the appropriate measures (calibration/recalibration).

## 6.3. Replacing the Main Board

### Procedure for replacing the board:

1. Lift top cover (for details, please refer to Open housing chapter; please see also chapter service preparation).
2. Disconnect all cables plugged into main PCB.
3. Install the new PCB following the same instructions in reverse order.
4. Install the top cover.



### Procedure for restoring the system

1. Define country code (Scale Configuration, STEP1).
2. Initialize to defaults (Operational Setup; STEP2).
3. Define & save all parameters (Press menu key 2 times and choose save).
4. Switch scale on again, check configuration (Geo Code & Country Setting) on the display while scale is booting.



After replacing the main board, the following steps must be performed:

- Check & set local geo code

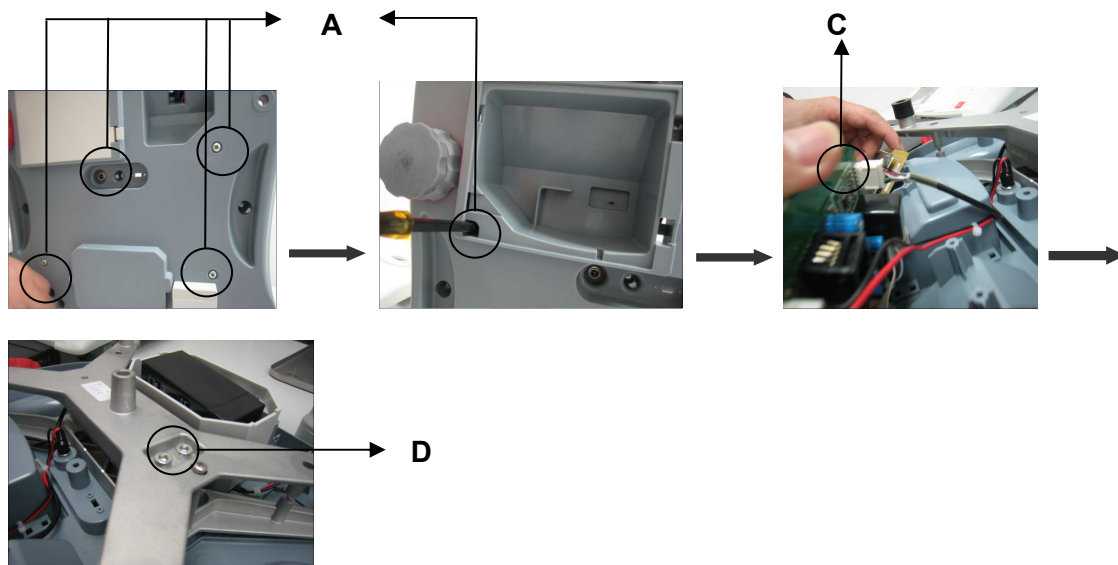
- Apply local currency/country setting
- After changing the mainboard calibration of the system is mandatory

**Attention:**

Assuming the user is to use the (non-automatic) scales/balance in the legally regulated field, the User will be responsible for notifying the appropriate calibration authorities of the repaired scales/balance, so that the latter can take the appropriate measures (calibration/recalibration).

## 6.4. Load Cell

**Preparation:** Write down the geo code



### Procedure for replacing the load cell:

1. Open top cover (More details please refer to open housing chapter, service preparations section).
2. Unscrew the four screws (A).
3. Open adapter housing and unscrew 1 screw (A).
4. Disconnect the load cell cable(C) from mainboard.
5. Remove 4 screws of the load cell support (D).Remove the old load cell.
6. Install the new load cell (**capacities lower than 7kg: 7.2N.m~7.8N.m; Capacities over 10kg: 10.5N.m~11.0N.m**), following the same instructions in the reverse order.
7. **Adjust the overload gap and underload gap to avoid damage to the load cell. Reference the below form.**

Product name	Tools	Capacity of LC	4 corner gap	Mid corner gap	Draw corner gap
BRite	Q25-1	AMI-5kg	0.60+0.05mm	0.35+0.05mm	0.35mm
	Q25-2	AMI-11kg	0.7+0.05mm	0.40+0.05mm	0.35mm
	Q25-4	AMI-22kg	1.25+0.05mm	0.62+0.05mm	-----
	Q25-5	AMI-40kg	2.15+0.05mm	1.25+0.05mm	-----

8. Close housing.

### Attention:

Assuming the user is to use the (non-automatic) scales/balance in the legally regulated field, the User will be responsible for notifying the appropriate calibration authorities of the repaired scales/balance, so that the latter can take the appropriate measures (calibration/recalibration).

### Calibration testing procedures:

#### 1. Repeatability Test

**Purpose:** Determination of the difference between several weighing processes for one load.

**References:** R76-1 (legal for trade).



**Limits:**

<b>Levels</b>	All
<b>Max. error</b>	$\Delta \text{Span} \leq 1 \text{ Mpe}$

<b>Weighing</b>	<b>Max. error</b>
$0e < m < 500e$	$\leq 0.5e$
$500e < m < 2000e$	$\leq 1.0e$
$2000e < m < \text{max}$	$\leq 1.5e$

**Conditions:** standard conditions.

**Procedure:**

- 10 times individual weighing with full load (nearest the capacity). Position on the center of the plate
- 10 times individual weighing with 50% of full load (nearest the capacity).  
Position on the center of the plate.
- If necessary, repeat measurements with other loads and tare values.
- Measurements can be taken manually or automatically (computer test program or printer).
- In the case of a zero indication deviation between the weighing, the instrument shall be reset to zero without determining the error at zero.
- Record: indication of 3 individual weighing processes for each load, and time behavior of each weighing process.

**Results:**

Comparison of the indications with the required values, the highest and lowest indications for any given load should be within 1 mpe of each other.

**2. Linearity Test**

**Purpose:** Determination of the repeatability (deviation in multiple weighing processes of the same load), and of the linearity behavior of the EUT.

**References:** Product description.

<b>Weighing</b>	<b>Max. error</b>
$0e < m < 500e$	$\leq 0.5e$
$500e < m < 2000e$	$\leq 1.0e$
$2000e < m < \text{max}$	$\leq 1.5e$

**Conditions:** standard conditions.

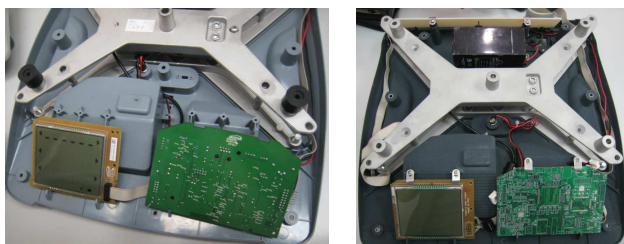
**Procedure:**

- 10 individual weighing processes at each load with at least 5 different loads (including zero point and full load). Suggested individual weighing with 0, 1/6, 1/3, 2/3, 1 of full load.
- When taking individual weight measurements at no load, tap the pan lightly to produce a visible change on the indicator. After the reading stabilizes, this indication is the zero or zero error reading for no load.
- Measurements can be taken manually or automatically (computer test program or printer).
- Recorded data: zero point and indication of 10 individual weighing processes at each load, and if necessary, the time behavior of each weighing process.

**Results:**

Comparison of the indications with the 10 individual weighing processes of each load, the highest and lowest indications for any given load should be within 1 mpe of each other.

## 6.5. Display Exchange



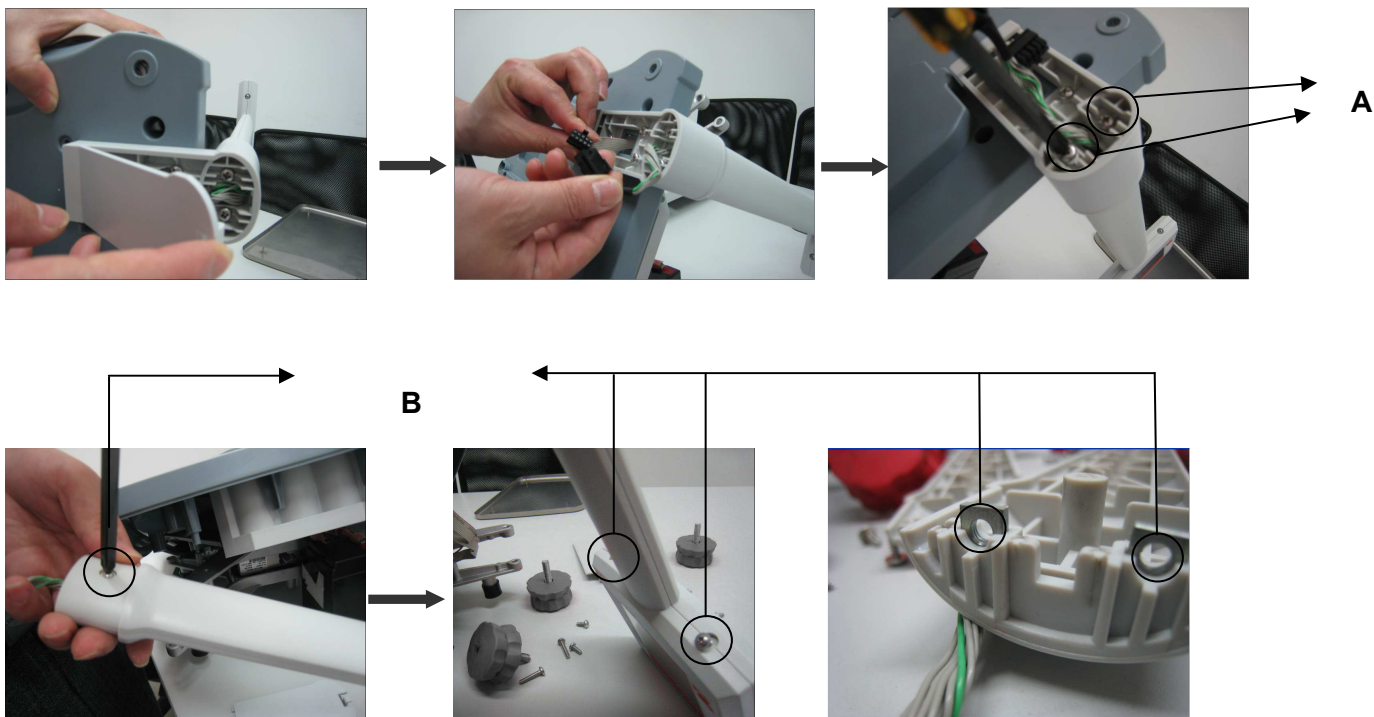
### Procedure for replacing the display:

#### *Replacing the operator side display*

1. Open the top cover (please refer to opening housing chapter, please see also service preparations section)
2. Disconnect all cables.
3. Remove the old display directly.
4. Install a new display, follow same instructions in the reverse order.

#### *Replacing the customer side display*

1. Open the top cover (please refer to the Opening the Housing chapter, service preparations section).
2. Disconnect all cables.
3. Remove the old display directly.
4. Install new display, follow same instructions in the reverse order.

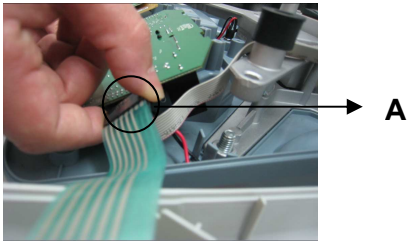


#### *Replacing the tower display.*

1. Reverse housing.
2. Open the tower base cover.
3. Disconnect cables.
4. Unscrew the 2 screws (A).
5. Unscrew the 3 screws (B) Please pay attention to that there are two screws in tower, be care, don't lost it when you open the tower.
6. Install a new display. Follow the same instructions in the reverse order.

## 6.6. Keyboard Exchange

Procedure for replacing the keyboard:



### *Replacing BRite standard keyboard*

1. Open top cover (please refer to opening the housing chapter, service preparations section).
2. Disconnect keyboard cable (A).
3. Remove the old keyboard
4. Install new keyboard, following the same instructions in the reverse order.

### *Replacing BRite Advanced keyboard (PCB layer)*

1. Open top cover (please refer to opening housing chapter, service preparations section).
2. Take off silicon key layer/ function paper layer/ white silicone mat.
3. Disconnect keyboard cable (A).
4. Remove the old keyboard directly.
5. Install a new keyboard, following the same instructions in the reverse order

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